

REMARKS

This communication responds to the Appeal Board Decision dated December 14, 2011, and the Final Office Action dated May 31, 2005. Claims 1, 9-12, 14-17, and 20-22 are currently amended. Claims 13, 18-19, and 23 are currently canceled. Claims 28-30 are currently added. As a result, claims 1-12, 14-17, 20-22, and 24-30 are now pending in this Application. It is noted that unless otherwise stated herein, amendments to the claims have been made to clarify meaning, correct typographical errors, provide proper antecedent basis, and/or provide consistent terminology, and not for reasons related to patentability. The amendments are fully supported in the specification as originally filed, for example, at FIGS. 3 & 5, p. 2, line 25 through p. 3, line 2, p. 5, lines 19-22, p. 6, lines 23-26, p. 8, lines 1-21 and p. 9, line 20 through p. 10, line 4. Thus, no new matter has been introduced.

The Rejection of Claims Under § 102

Claims 24-26 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Tran (U.S. Patent No. 5,822,575). Since a proper *prima facie* case of anticipation has not been established in each instance, these rejections are respectfully traversed.

As noted in the Appeal Board Decision at p. 4, Tran fails to show “a base misprediction history register,” much less “restoring a base misprediction history register,” as recited in independent claim 24.

For at least the reasons stated above, Tran fails to show all of the elements recited in independent claim 24, and this claim is therefore in condition for allowance. Therefore, it is respectfully requested that the rejection of independent claim 24 under 35 U.S.C. § 102(b) be reconsidered and withdrawn.

Claims 25 and 26 depend from independent claim 24, and contain additional, patentable subject matter. For at least the reasons noted with respect to independent claim 24, these dependent claims are also in condition for allowance. Therefore, it is respectfully requested that the rejections of dependent claims 25 and 26 under 35 U.S.C. § 102(b) also be reconsidered and withdrawn.

The Rejection of Claims Under § 103

Claims 1-8, 10-12, 14-15, 17, and 20-22 were rejected under 35 U.S.C. §103(a) as allegedly being obvious in view of Patt et al. (“Alternative Implementations of Hybrid Branch Predictors”: hereinafter “Patt”) and McFarling (“WRL Technical Note TN-36: Combining Branch Predictors”: hereinafter “McFarling”). Since a proper *prima facie* case of obviousness has not been established in each instance, these rejections are respectfully traversed.

Independent claims 1, 10, 17, and 20 have been amended solely to expedite prosecution, and not for reasons related to patentability. For example, amended independent claim 1 recites, in pertinent part:

a meta predictor to receive as inputs an index value and a branch prediction to generate a misprediction value in accordance with said inputs and said base misprediction history register output, said branch prediction generated in response to a branch request and said misprediction value comprising a value predicting whether said branch prediction is correct or incorrect; and

a logic gate to generate a final prediction based on said branch prediction and said misprediction value, said final prediction comprising information indicating whether said branch prediction is to be taken or reversed for said branch request according to said misprediction value.

Elements similar to the above-quoted elements are recited in amended independent claims 10, 17, and 20. The combination of Patt and McFarling does not teach or suggest these elements, as recited in amended independent claims 1, 10, 17, and 20.

Neither Patt Nor McFarling, alone or in combination, teaches or suggests generating the misprediction value that comprises value predicting whether the branch prediction for the branch request is correct or incorrect, much less generating the final prediction that comprises information indicating whether the branch prediction is to be taken or reversed for the branch request according to the misprediction value – as recited in amended independent claim 1. Nowhere is any such teaching or suggestion found within the bounds of Patt or McFarling, alone or in combination.

These arguments supporting the patentability of claim 1 similarly apply to amended independent claims 10, 17, and 20, which each recites similar elements.

For at least the reasons stated above, neither Patt nor McFarling, alone or in combination, teaches or suggests all of the elements recited in amended independent claims 1, 10, 17, and 20, and these claims are therefore in condition for allowance. Therefore, it is respectfully requested that the rejections of independent claims 1, 10, 17, and 20 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Claims 2-8, 11-12, 14-15, and 21-22 depend from either independent claim 1, 10, or 20, and contain additional, patentable subject matter. For at least the reasons noted with respect to respective independent claims 1, 10, and 20, these dependent claims are also in condition for allowance. In addition, any claim depending from a nonobvious independent claim is also nonobvious. *See M.P.E.P. § 2143.03.* Therefore, it is respectfully requested that the rejections of dependent claims 2-8, 11-12, 14-15, and 21-22 under 35 U.S.C. § 103(a) also be reconsidered and withdrawn.

New Claims

Claims 28-30 are new. Support for claims 28-30 may be found in the specification as originally filed, for example, at FIGS. 3 & 5, p. 2, line 25 through p. 3, line 2, p. 5, lines 19-22, p. 6, lines 23-26, p. 8, lines 1-21 and p. 9, line 20 through p. 10, line 4. Thus, no new matter has been introduced. Claims 28-30 depend from independent claim 24, and contain additional, patentable subject matter. For at least the reasons noted with respect to independent claim 24, these dependent claims are also in condition for allowance. Therefore, it is respectfully requested that dependent claims 28-30 be considered and allowed.

Allowable Subject Matter

Claims 9 and 16 were objected to as depending from a rejected base claim, but indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 9 and 16 depend from independent claims 1 and 10, respectively, and include additional, patentable subject matter. For at least the reasons noted with respect to respective independent claims 1 and 10, the undersigned respectfully submits that

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.114 - RCE

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amended dependent claims 9 and 16 are also in condition for allowance. Thus, the opportunity to amend claims 9 and 16 in independent form at this time is respectfully declined.

CONCLUSION

The undersigned respectfully urges that all of the pending claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (612) 371-2151 to facilitate prosecution of this Application. If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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